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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,896	08/14/2003	Nahoko Takano	NECP 20.583	3204
26304 7590 05/22/2007 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER DUONG, FRANK	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 05/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/642,896	Applicant(s) TAKANO ET AL.	
	Examiner Frank Duong	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 17, 31-33 and 49-64 is/are rejected.
- 7) ☒ Claim(s) 2-16, 18-30 and 34-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is a response to communications dated 08/14/03. Claims 1-64 are pending in the application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. However, it appears there is no certified English translation for the priority paper submitted. Thus, Applicants cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Information Disclosure Statement

3. The information disclosure statement filed 11/20/03 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

Drawings

4. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the

page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 49-64 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 49-64 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 49-64, while defining a computer program, do not define a "computer-readable medium" and is thus non-statutory for that reasons. A computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

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"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 17, 33 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by R1-02-0760, Simulation Results on HS-DPCCH power control, downloadable from the Internet, pages 1-12, May 2002 (hereinafter "Doc").

Regarding **claim 1**, in accordance with Doc reference entirety, Doc discloses a cellular system (page 2, Figure 1) including: at least one mobile station (UE) being concurrently linked through dedicated physical channels (DPDCHs) to plural link base stations (serving cells) in a soft handover state, and wherein at least one packet-transmitting base station (HS-DSCH serving cell) of said plural base stations transmits at least one packet through a common channel to said at least one mobile

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station, and wherein said at least one mobile station (*Figure 1 depicted Packet Transmit Period*) includes:

a first transmission power control function (Normal TPC) of controlling a current transmission power of an up-link of said dedicated physical channel (UL DPDCH) based on a first transmission power control information included in down-links of said dedicated physical channels of said plural link base stations; and

a second transmission power control function (Modified TPC) of controlling said current transmission power of said up-link of said dedicated physical channel (UL DPDCH) based on a second transmission power control information included in a down-link of said dedicated physical channel of said at least one packet-transmitting base station (HS-DSCH servicing cell), and

wherein if said at least one mobile station is placed in a first state (*packet receiving*) to receive a packet from said at least one packet-transmitting base station, then said at least one mobile station activates said second transmission power control function (*note: page 2, section 2.3, it is disclosed UE uses TPC commands only from HS-PDSCH serving cell when HS-PDSCH packets are transmitted. This disclosure is corresponding to this limitation*), and

wherein if said at least one mobile station is placed in a second state (*no packet receiving*) other than said first state, then said at least one mobile station activates said first transmission power control function (*note: page 2, section 2.3, it is disclosed Normal TPC operation is applied when HS-PDSCH packets are not transmitted. This disclosure is corresponding to this limitation*).

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Regarding **claim 17**, in accordance with Doc reference entirety, Doc shows a mobile station (UE) included in a cellular system (Figure 1) and being concurrently linked through dedicated physical channels to plural link base stations (serving cells) in a soft handover state, said mobile station (*Figure 1 depicted Packet Transmit Period*) includes:

a first transmission power control function (Normal TPC) of controlling a current transmission power of an up-link of said dedicated physical channel (UL DPDCH) based on a first transmission power control information included in down-links of said dedicated physical channels of said plural link base stations; and

a second transmission power control function (Modified TPC) of controlling said current transmission power of said up-link of said dedicated physical channel (UL DPDCH) based on a second transmission power control information included in a down-link of said dedicated physical channel of said at least one packet-transmitting base station (HS-DSCH servicing cell), and

wherein if said at least one mobile station is placed in a first state (*packet receiving*) to receive a packet from said at least one packet-transmitting base station, then said at least one mobile station activates said second transmission power control function (*note: page 2, section 2.3, it is disclosed UE uses TPC commands only from HS-PDSCH serving cell when HS-PDSCH packets are transmitted. This disclosure is corresponding to this limitation*), and

wherein if said at least one mobile station is placed in a second state (*no packet receiving*) other than said first state, then said at least one mobile station activates said

first transmission power control function (*note: page 2, section 2.3, it is disclosed Normal TPC operation is applied when HS-PDSCH packets are not transmitted. This disclosure is corresponding to this limitation*).

As per **claim 33**, the claim calls for a method having limitations mirroring the apparatus claim 1. Thus, it is rejected by the same rationales applied to claim 1 as discussed above.

As per **claim 49**, the claim calls for a computer program having limitations mirroring the method claim 33, thus claim 1. Thus, it is rejected by the same rationales applied to claims 1 and 33 as discussed above.

7. Claims 31-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamabe (USP 6,950,671).

Regarding **claim 31**, in accordance with Hamabe reference entirety, Hamabe discloses a base station (BS1 or BS2) included in a cellular system (Fig. 1, 5 or 6), and said base station in a soft handover being linked through a dedicated physical channel (DPCH) to at least one mobile station (UE), and said base station transmitting at least one packet through a common channel (HS-PDSCH) to said at least one mobile station (UE), wherein said base station includes an additional function of increasing, by a predetermined secondary off-set power (*predetermined offset value*), a secondary transmission power for transmitting a transmit power control information to said at least one mobile station (UE) (Fig. 5; step 10 and col. 12, lines 35-41), after said base station

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has transmitted an advance notice of packet transmission to said at least one mobile station (UE) (*Fig. 5; step 11 and col. 12, lines 32-34*).

Regarding **claim 32**, in addition to features recited in base claim 31 (see rationales discussed above), Hamabe also discloses wherein said additional function further decreases said increased secondary transmission power by said predetermined secondary off-set power, after said base station has received a notice of completion of packet transmission from said at least one mobile station (*Fig. 5; step 19 and col. 13, lines 16-20*).

Allowable Subject Matter

8. Claims 2-15, 18-29 and 34-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed invention of base claim and further limit with novel and unobvious limitation of "*wherein after said at least one mobile station has been placed in said first state, then said second transmission power control function decides an off-set power based on said second transmission power control information and increases said current transmission power by said off-set power, before said at least one mobile station will make a first transmission of an acknowledge/non-acknowledge signal to said at*

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least one packet-transmitting base station," structurally and functionally interconnected with other limitations in a manner as recited in claims 2-15, 18-29 and 34-47

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al (USP 7,010,318).

Malladi et al (USP 6,850,771).

Hwang et al (Patent Application Publication 2003/0108013).

R1-02-1315, Modified TP for HS-DPCCH operation in SHO, downloadable from the Internet, pages 1-5, November 2002.

TSGR1-02-0719, HS-DPCCH Power Control in Soft-Handoff, downloadable from the Internet, pages 1-12, May 2002.

Akhtar et al, A Comparative Study of Power Control Strategies for Soft Handover in UTRA FDD WCDMA System, IEEE, pages 2680-2684, 2001.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Frank Duong', with a stylized flourish at the end.

**FRANK DUONG
PRIMARY EXAMINER**

May 16, 2007